Title of Instructional Materials: Prentice Hall Alg I

Grade Level: Algebra I

Summary of Prentice Hall Alg. I

Overall Rating: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** This book includes mathematical practices that can be implemented with the lesson, but they are not always incorporated with the student work.	Important Mathematical Ideas: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Frequent "Concept Bytes", as well as the "Getting Ready" at the beginning of many lessons, provide ideas for developing mathematical ideas conceptually; however, the conceptual development is not integrated into every lesson (ie p. 80, 10`).
Skills and Procedures: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** This text makes an attempt in every lesson to connect at least one of the first examples to real-life situations (Lesson 2-5).	Mathematical Relationships: ☐ Weak (1-2) ☒ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Problem sets include applications and conceptual questions more equally distributed, earlier, in the problem set.

Reviewed By: _____

Title of Instructional Materials: Practice - Holt

Documenting Alignment to the Standards for Mathematical Practice

1

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Prentice Hall Alg I

ALGEBRA I — NUMBER AND QUANTITY (N)

The Real Number System (N-RN)

Extend the properties of exponents to rational exponents.

N-RN.1

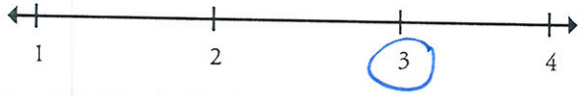
Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define $5^{1/3}$ to be the cube root of 5 because we want (51/3)3 = $5(^{1/3})^3$ to hold, so $(5^{1/3})^3$ must equal 5.*

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Concept Byte before 7-2
7-2
Concept Byte before 7-3
7-3
7-4

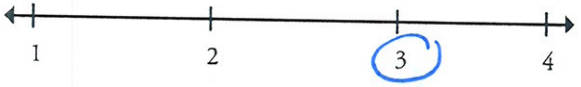
Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas



Skills and Procedures

Mathematical Relationships



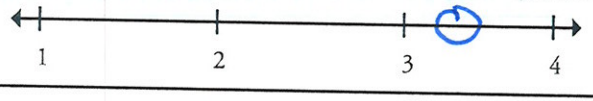
Summary / Justification / Evidence

Good coverage of rules of exponents - power to a power, product to a power, etc.
Good scientific notation

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

no fractional exponents

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

The Real Number System (N-RN)

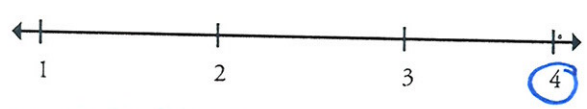
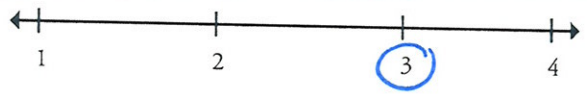
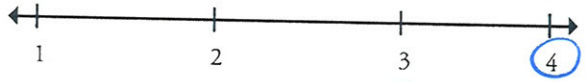
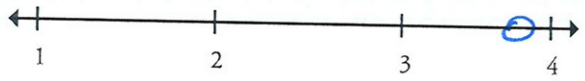
Extend the properties of exponents to rational exponents.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 7-5	Important Mathematical Ideas: 1 2 (3) 4 Skills and Procedures: 1 2 3 (4) Mathematical Relationships: 1 2 (3) 4 **Summary / Justification / Evidence** Covers division properties w/ exponents **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 (3) 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

The Real Number System (N-RN)

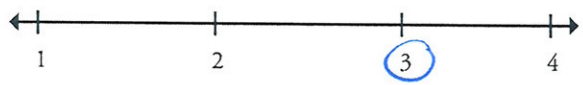
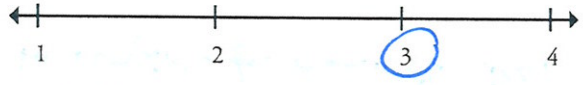
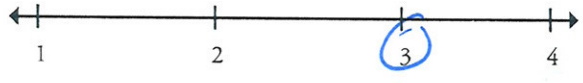
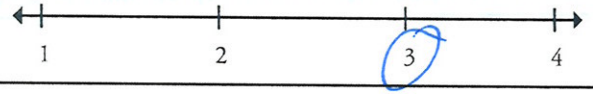
Use properties of rational and irrational numbers.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-RN.3 Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Concept Byte following 1-6	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** Good/Creative way to demonstrate "closure" to students and make it tangible for them. :) Like! **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

Quantities (N-Q)

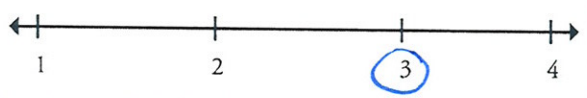
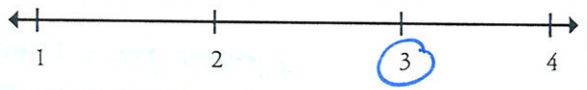
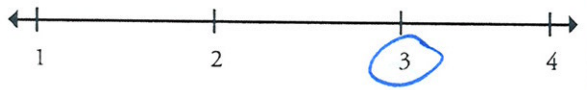
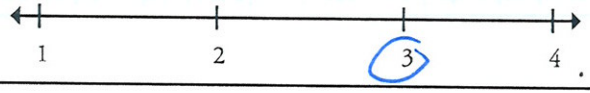
Reason quantitatively and use units to solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.* Note: Foundation for work with expressions, equations and functions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2-5 Concept Byte following 2-6 2-6 2-7 4-4 5-7 12-2 12-4	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

Quantities (N-Q)

Reason quantitatively and use units to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-Q.2 Define appropriate quantities for the purpose of descriptive modeling.* Note: Foundation for work with expressions, equations and functions.	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. 2-6, 3-3, 4-5, 5-2, 5-5, 6-4, 9-3 12-5 Concept byte following 2-6	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

Quantities (N-Q)

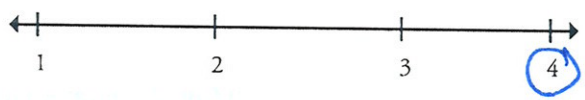
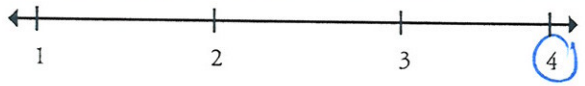
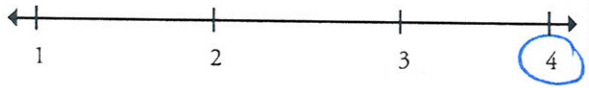
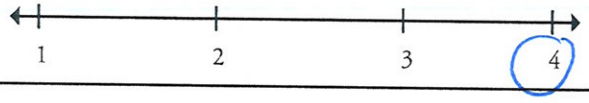
Reason quantitatively and use units to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-Q.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.* Note: Foundation for work with expressions, equations and functions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2-10 6-4 9-5 9-6 Concept byte following 1-5 * Will be adding more material according to description.	Important Mathematical Ideas: 1 2 (3) 4 Skills and Procedures: 1 2 (3) 4 Mathematical Relationships: 1 2 (3) 4 **Summary / Justification / Evidence** Think supplemental material, based on description in binder, will assist **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 (3) 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

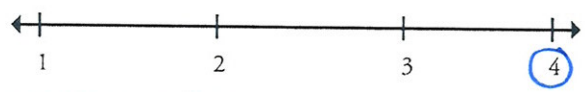
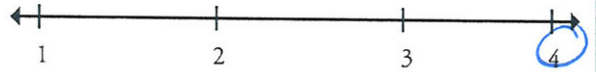
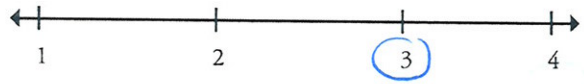
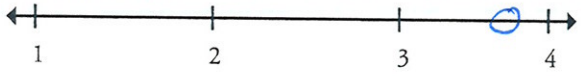
Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.1a 1. Interpret expressions that represent a quantity in terms of its context.* a. Interpret parts of an expression, such as terms, factors, and coefficients. Note: Linear, exponential, quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 1-1, 1-2, 1-7, 4-5, 4-7, 5-3, 5-8, 7-5, 7-8, 8-5, 8-6, 8-7, 9-5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

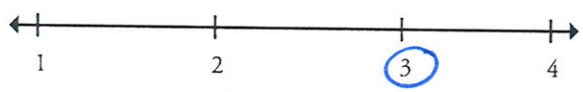
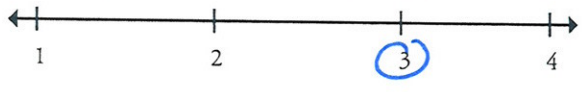
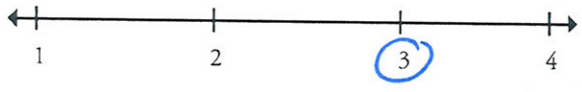
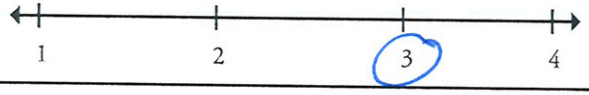
Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.1b 1. Interpret expressions that represent a quantity in terms of its context.* b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P.* Note: Linear, exponential, quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 3-7 | 9-5 4-7 7-7 8-5 8-6 8-7 8-8	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

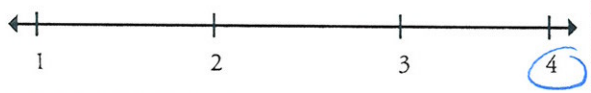
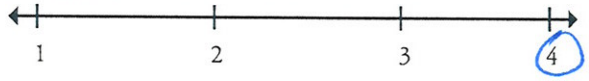
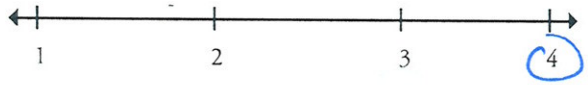
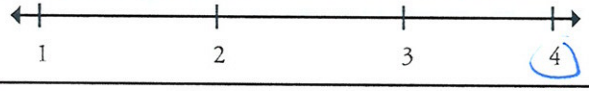
Interpret the structure of expressions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.2 Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.* Note: Linear, exponential, quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 5-3 5-4 5-5 8-7 8-8	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

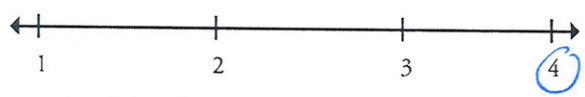
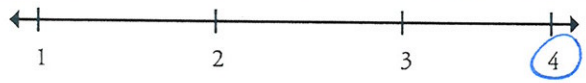
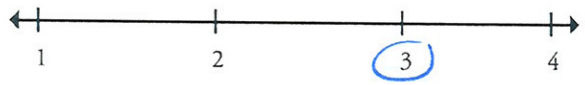
Write expressions in equivalent forms to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.3a 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* a. Factor a quadratic expression to reveal the zeros of the function it defines. Note: Quadratic and exponential. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 9-4	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Write expressions in equivalent forms to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.3b 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. Note: Quadratic and exponential. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 9-5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Write expressions in equivalent forms to solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.3c 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* c. Use the properties of exponents to transform expressions for exponential functions. *For example the expression* 1.15^t *can be rewritten as* $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ *to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.* Note: Quadratic and exponential. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 7-7	Important Mathematical Ideas 1 2 (3) 4 Skills and Procedures 1 2 3 (4) Mathematical Relationships 1 2 (3) 4. **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 (3) 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Perform arithmetic operations on polynomials.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. Note: Linear and quadratic.	Important Mathematical Ideas: 1 2 (3) 4 Skills and Procedures: 1 2 (3) 4 Mathematical Relationships: 1 (2) 3 4 **Summary / Justification / Evidence** "understand"? → shows all procedural steps though not specific discussion surrounding each
Indicate the chapter(s), section(s), and/or page(s) reviewed. 1-8, 2-1, 2-2, 2-3, 2-4, 2-5, 2-7, 2-8; 3-2, 3-3, 3-4, 3-6, 3-7, 9-3, 9-4, 9-5; 9-6, 11-5; 8-1, 8-2, 8-3, 8-4	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 (3) 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

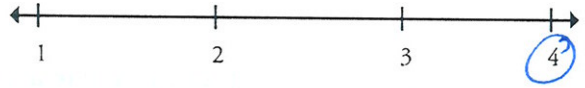
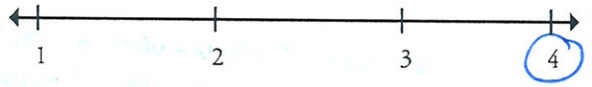
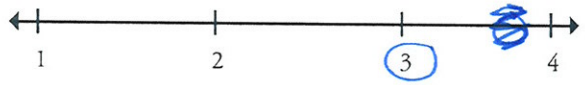
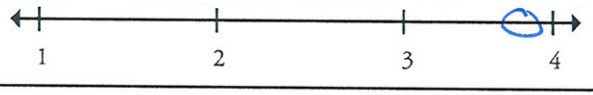
Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.1 Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.** Note: Linear, quadratic, and exponential (integer inputs only). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 1-8, 2-1, 2-2, 2-3, 2-4, 2-5, 2-7, 2-8, 3-2, 3-3, 3-4, 3-6, 3-7, 9-3, 9-4, 9-5, 9-6, 11-5	Important Mathematical Ideas: 1 2 **3** 4 Skills and Procedures: 1 2 **3** 4 Mathematical Relationships: 1 2 3 **4** **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not "creating" as much for quad + exp. Overall Rating: 1 2 **3** 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

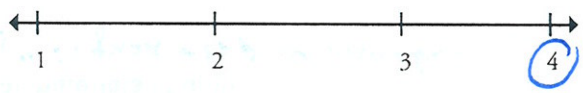
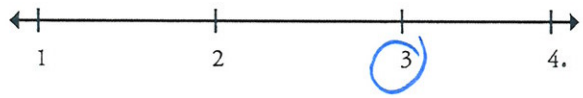
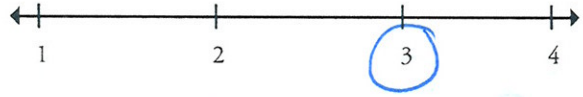
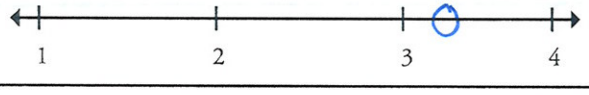
Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.* Note: Linear, quadratic, and exponential (integer inputs only).	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
Indicate the chapter(s), section(s), and/or page(s) reviewed. 1-9 | 9-2 4-5 | 10-5 5-2 | 11-6 5-4 | 11-7 5-5 | Concept byte after 11-7 7-6 7-7 9-1	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Again, not "creating" in quad + exp as much Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

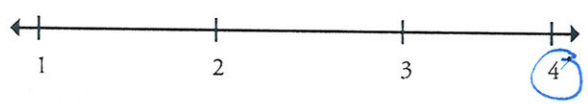
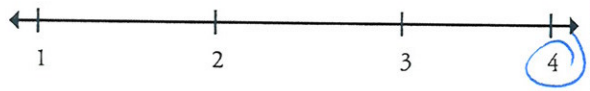
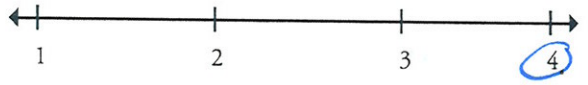
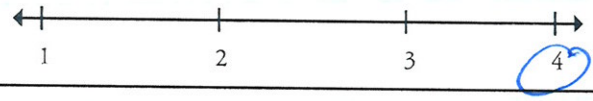
Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.** Note: Linear (integer inputs only). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 6-4 6-5 9-8	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** Good application probs, not as much direct discussion about viable & non-viable options **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

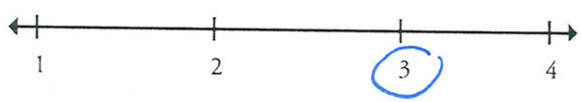
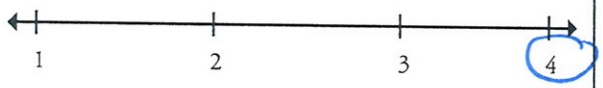
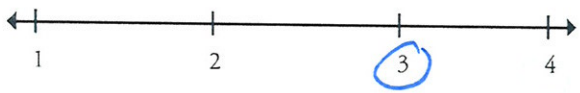
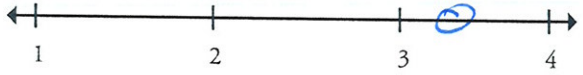
Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law V = IR to highlight resistance R.** Note: Linear, quadratic, and exponential (integer inputs only). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2-5 9-3	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Not exponential Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Understand solving equations as a process of reasoning and explain the reasoning.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. Note: Master linear; learn as general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2-2 2-3 2-4 2-5 9-4 9-5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

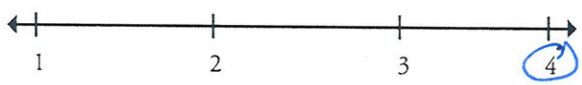
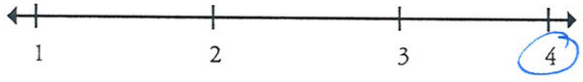
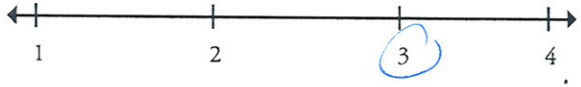
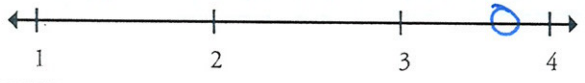
Solve equations and inequalities in one variable.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2-1, 2-2, 2-3, 2-4, 2-5, 2-7, 2-8, 3-2, 3-3, 3-5, 3-6	Important Mathematical Ideas: 1 2 3 **4** Skills and Procedures: 1 2 3 **4** Mathematical Relationships: 1 2 3 **4** **Summary / Justification / Evidence** EXCELLENT!
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating: 1 2 3 **4**

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

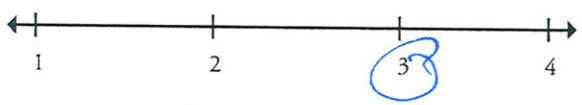
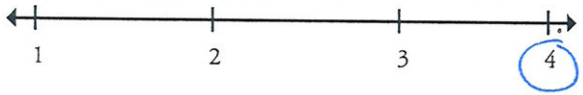
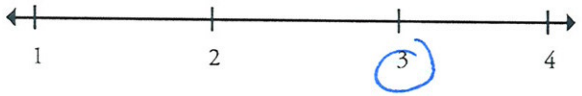
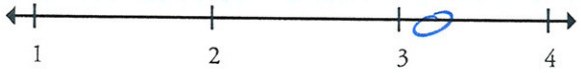
Solve equations and inequalities in one variable.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.4a 4. Solve quadratic equations in one variable. a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 9-3, 9-4, 9-5, 9-6	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

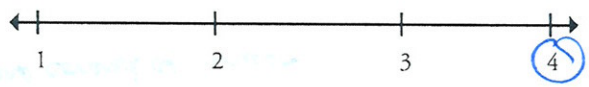
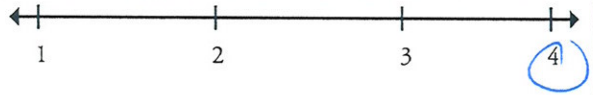
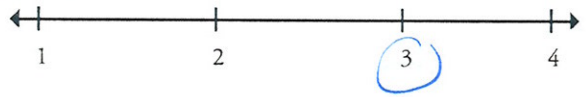
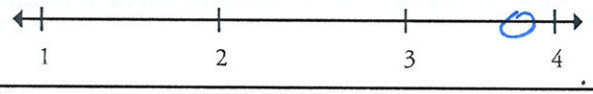
Solve equations and inequalities in one variable.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.4b 4. Solve quadratic equations in one variable. b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 9-5 & 9-6	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): not sure complex answers covered as much
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Solve systems of equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions. Note: Linear-linear and linear-quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 6-3	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Solve systems of equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. Note: Linear-linear and linear-quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 6-1 6-2 6-3 6-4	Important Mathematical Ideas 1 2 3 (4) Skills and Procedures 1 2 3 (4) Mathematical Relationships 1 2 3 (4) **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 (4)

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Solve systems of equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.7 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. *For example, find the points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$.* Note: Linear-linear and linear-quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 9-8	Important Mathematical Ideas 1 2 3 (4) Skills and Procedures 1 2 3 (4) Mathematical Relationships 1 2 3 (4) **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 (4)